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09/581,333	10/06/2000	Edward Jobson	ALBIHNW-386	2484

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EXAMINER
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ILDEBRANDO, CHRISTINA A

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 07/15/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/581,333

Applicant(s)

JOBSON ET AL.

Examiner

Christina Ildebrando

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39-77 is/are pending in the application.
- 4a) Of the above claim(s) 64-77 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Group I, claims 39-63, in Paper No. 8 is acknowledged. The traversal is on the ground(s) that claim 39 as amended, recites that the reducing agent is sterically prevented from contacting said oxidation catalyst," which is the common feature which links the claims of Group I and Group II. Applicant further argues that this common feature is not anticipated or rendered obvious by any of the references cited by the examiner. This is not found persuasive.

The examiner does not agree that the feature pointed out by applicant is the common feature that links the claims of groups I and II. Claim 39 recites a carrier having a porous structure and an oxidation catalyst wherein the pores of the of the porous structure sterically prevent the reducing agent from contacting the oxidation catalyst while claim 64 recites only an oxidation catalyst, without any mention of a carrier with a porous structure. Therefore, the examiner maintains that the common technical feature which links the claims of the two groups is an oxidation catalyst capable of catalyzing the oxidation of NO to NO<sub>2</sub> in the presence of oxygen and catalyzing the oxidation of a reducing agent, which feature is anticipated or rendered obvious by the references provided by the examiner in the previous office action. Therefore, because the common feature does not define a contribution over the prior art, unity of invention is lacking and restriction between the two groups is lacking.

Applicant further argues that the examiner has to prove that the search and examination of the entire application constitutes an undue burden on the office.

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However, it appears that applicant is applying the rules of US restriction practice instead of PCT restriction practice as set forth in PCT Rules 13.1 and 13.2. As discussed above, because the claims of the two groups lack unity, restriction between the two groups is proper.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 64-77 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 39-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 39 recites the limitation "A porous material...comprising a carrier including a first porous structure, an oxidation catalyst...enclosed within said first porous structure." Applicant recites "carrier" throughout the claims. This limitation renders the claim indefinite because it is not clear if the porous material, either the first or second, actually includes a carrier, a porous structure, and an oxidation or reduction catalyst or

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whether applicant intends to recite a carrier having a porous structure which contains the oxidation catalyst or the reduction catalyst. If applicant intends an additional component such as a carrier it is not clear how all three elements relate to one another. From the description in the specification and the examples, it is not clear what the carrier would be, especially since applicant additionally specifies a substrate (claim 63).

6. Claim 53 recites the limitation "second zeolite is applied by overgrowth onto said first zeolite." It is not clear what applicant intends by "overgrowth," i.e. simply layered on top of the first zeolite or something more?

7. Claim 54 recites the limitation "the content of said oxidation catalyst in the outer layers of said first zeolite." The recitation "the outer layers of said first zeolite" lacks proper antecedent basis in the claims. The first zeolite has not been defined as having layers. In addition, it is not clear what is meant by the outer layers of a zeolite, which is a generally crystalline, not layered, structure.

8. Claim 54 additionally recites "the content...has been reduced by means of regulating the penetration depth or dispersion thereof." It is not clear what applicant intends by "reduced" – i.e. relative to what? Also, it is not clear to what the recitation "regulating the penetration depth or dispersion thereof" is referring. It appears these terms lack proper antecedent basis in the claims.

#### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 39-63 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al.

Yamada et al. (JP 7-144128) discloses an adsorbent composition which adsorbs a hydrocarbon contained in an exhaust gas. The composition comprises a zeolite having pores of a larger diameter and a zeolite having pores of a smaller diameter for exhaust gas cleaning which are physically mixed or laminated adjacently (Abstract, [0012], and claim 7). The reference teaches a mixture of 8 membered ring crystalline structures such as CHA having a pore diameter of 0.3-0.5 nm, 10 membered ring crystalline structures such as MFI, MEL, and FER having a pore diameter of 0.4-0.6, and 12 membered ring crystalline structure such as FAU and BEA having a pore diameter of 0.6-0.75 nm ([0015]-[0017] and Table 1).

With reference to the Figure 2, it is taught that the adsorption device (3) comprises a cordierite honeycomb support (4) with a coating layer (5) of the adsorbent component ([0075] and Figure 2). With reference to Figure 4, the coating layer may comprise a three layer structure comprising a first layer (11) of chabazite zeolite, a second layer (12) of ZSM-5 zeolite, and a third layer (13) of a faujasite zeolite on a honeycomb support (4) ([0079] and Figure 4). Alternatively, with reference to Figure 5, the three zeolites may be physically mixed and then washcoated onto a monolithic support ([0080] and Figure 5).

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It is further taught that the composition is impregnated with catalytic metals such as Pt and Rh ([0056]). With reference to the examples, it is taught that a hydrogen-form (acidic) MFI-FAU composite is prepared which is impregnated with Pt and Rh. The composite is loaded on a honeycomb support. Refer to [0117]-[0121].

With reference to the language of the claims, it is considered that the 8 and 10 membered ring crystalline structure taught by the reference would meet the first porous structure and the 12 membered ring crystalline structure would meet the second porous structure, which would have a pore size larger than the first porous structure, as required by claim 41. The impregnation of the adsorbent component with platinum and rhodium as taught by the reference would meet the oxidation and reduction catalyst claimed herein. The arrangement of the catalyst material taught by the reference appear to meet the instantly claimed arrangement.

The intended use limitations throughout claims 39-63 are noted by the examiner. While intended use recitations cannot entirely be disregarded, in composition and article claims, the intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention over the prior art. *In re Casey*, 370 USPQ 235 and *In re Otto*, 312 USPQ 458. It is the position of the examiner that the prior art structure is capable of performing the intended use and therefore meets the instant claims because it contains the same components in the same arrangement as the structure claimed herein.

With regards to the limitation "said first porous structure including pores having dimensions such that said reducing agent is sterically prevented from contacting said

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oxidation catalyst" it is the position of the examiner that because the zeolites taught by the reference, such as chabazite and ZSM-5, meet the pore size range claimed, the zeolites taught by Yamada et al. would meet the first porous structure. Similarly, with regards to the limitation "said second porous structure including pores having a dimension such that said reducing agent can contact said reduction catalyst" it is the position of the examiner that because the zeolites taught by the reference, such as faujasite and beta meet the pore size range claimed, i.e. greater than 6 angstroms, the zeolites taught by Yamada et al. would meet the second porous structure.

As each and every element of the claimed invention is taught in the prior art as recited above, the claims are anticipated by Yamada et al.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Note that US 5,744,103 is the US equivalent of JP 7-144128.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Ildebrando whose telephone number is (703) 305-0469. The examiner can normally be reached on Monday-Friday, 7:30-5, with Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone



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numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

CAI  
July 14, 2002

*Wayne A. Lange*  
Wayne A. Lange  
Primary Examiner  
EAU 1754